

Serial No. 10/047,584

In the Claims:

1. (original) A method of treating an object in a closed circuit solvent processing system, said system including a chamber, a first fluid supply tank in communication with said chamber and a second fluid supply tank in communication with said chamber, said method comprising the steps of:

placing an object to be processed in a chamber;

sealing said chamber;

reducing the pressure within said chamber to evacuate the air from said chamber to create a vacuum condition;

introducing a first fluid having a first concentration to said evacuated chamber from a first fluid supply tank to process said object contained in said chamber;

recovering and retaining said first fluid from said chamber to return said chamber to said evacuated vacuum condition;

91 introducing a second fluid having a second concentration to said evacuated chamber from a second clean fluid supply tank to process said object contained in said chamber;

recovering and retaining said second fluid from said chamber to return said chamber to said evacuated vacuum condition;

introducing a non-condensable gas to said chamber to return said chamber to atmospheric pressure;

opening said chamber and removing said object;

redistributing said first and second fluids to said first and second supply tanks;
and

Serial No. 10/047,584

returning said first and second fluids to said first and second concentrations and retaining said fluids for use in treating subsequent objects.

2. (original) The method of treating an object in claim 1 wherein said step of reducing the pressure within said chamber comprises reducing the pressure to between atmospheric pressure and zero absolute pressure.

91 3. (original) The method of treating an object in claim 1 wherein said first and second fluids are selected from the group consisting of: organic solvents, water, and aqueous solutions.

4. (original) The method of treating an object in claim 1 wherein the method used in the steps of introducing said first fluid and said second fluid into said chamber is selected from the group consisting of: liquid spray and liquid soak.

5. (currently amended) The method of treating an object in claim 1 wherein ~~the fluid state of~~ said first and second fluids each have fluid states, said fluid states during the steps of introducing said first fluid and said second fluid into said chamber is selected from the group consisting of: vapor, gas-vapor mixture and aerosol spray.

6. (original) The method of treating an object in claim 1 wherein said first fluid in said first fluid supply tank and said second fluid in said second fluid supply tank each contain a mixture of the same chemicals in differing concentrations.

Serial No. 10/047,584

7. (original) The method of treating an object in claim 1, wherein said first fluid in said first fluid supply tank and said second fluid in said second fluid supply tank can be mixed while processing said object.

8. (original) The method of treating an object in claim 6, wherein said first fluid in said first fluid supply tank and said second fluid in said second fluid supply tank can be mixed while processing said object.

9. (currently amended) The method of treating an object in claim 1 wherein said step of redistributing said first and second fluids to said first and second supply tanks further comprises:

a/ heating said first fluid supply tank to evaporate a portion of said first fluid and distilling said evaporated portion of said first fluid to said second fluid supply tank.

10. (currently amended) The method of treating an object in claim 1 wherein said step of redistributing said first and second fluids to said first and second supply tanks further comprises:

transferring a portion of said first fluid from said first fluid supply tank to a heated distilling vessel;

heating said removed portion of first fluid in said heated distilling vessel to evaporate said first fluid; and

distilling said evaporated portion of said first fluid to said second fluid supply tank.

Serial No. 10/047,584

11. (original) The method of treating an object in claim 10, wherein said distilling vessel is selected from the group consisting of: single stage vessels, multiple stage vessels, tray distilling vessels, plate distilling vessels or fluidized distilling vessels.

12. (currently amended) The method of treating an object in claim 1 wherein said steps of recovering and retaining said first and second fluids from said chamber further comprise:

withdrawing a first portion of said first and second fluids from said chamber in a liquid state; and

a/
withdrawing the remaining portion of said first and second fluids from said chamber in a vapor state.

13. (currently amended) The method of treating an object in claim 12 wherein said step of withdrawing said first and second fluids in a vapor state further comprises:

reducing the pressure in said chamber causing said first and second fluids to flash to form a vapor; and

withdrawing said vapor from said chamber.

14-25. (canceled)
